

SAD MAINTENANCE UPDATE SOUTHEASTERN FEDERAL POWER ALLIANCE

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**US Army Corps
of Engineers®**



PHILPOTT TURBINE & GENERATOR UPGRADE



Scope: \$25.3M Project to upgrade turbines, rewind generators and replace associated equipment.

Current Status:

- Existing rating: 7.5MVA
- Expected uprate rating: 9.3MVA
- Intake Gates Refurbished.
- Draft Tube Bulkheads Replaced.
- Rehab Contract Awarded MAR-2021.
- Mudslide Cleanup Complete.
- New Switchgear Awarded.
- New Switchgear Building Design complete.
- Hillside Stabilization Design at 90%.
- Hillside repair unknowns are yielding rehab schedule uncertainty.
- Turb-Gen Contractor onsite.

Next Steps:

- Begin/Complete Hillside Stabilization.
- Complete Switchgear Building Project.
- Install Switchgear.



Milestone	Duration	Scheduled
Advertise Solicitation:		20-May-20
Close Solicitation:		08-Dec-20
Award:		29-Mar-21
Contractor Design:		24-Dec-21
Unit 2 Install		13-Jan-24
Unit 1 Install		02-May-25



HARTWELL UNITS 3 & 4 REWIND



Scope: \$24.4M Project to Rewind Units 3 & 4.

Current status:

- Unit 3 & 4 Coils & Laminations Fabrication - COMPLETE
- Rotor removed on 26 Jan 2023 with spreader bar lifting device and lifting slings.
- Unit 3 Stator Laminations and Keybars are removed
- Sandblasting Unit 3 Stator Frame in preparation of NDE of welds, axial ring stiffener inspections, and painting of entire frame.
- Working contract modification for Stator Frame sole plate leveling and grout repair.

Next Steps:

- Rewind Unit 3.
- Rewind Unit 4.
- Repair Lifting Beam.



Milestone	Duration	Scheduled
Advertise Solicitation:		11-Feb-20
Close Solicitation:		10-Jun-20
Award:		28-Aug-20
Contractor Design:		22-Mar-21
Unit 3 Manufacture:		23-Sep-21
Unit 3 Install:	859	30-Jan-24
Unit 4 Install:	320	3-Dec-24



RICHARD B RUSSELL UNIT 5 REPAIR



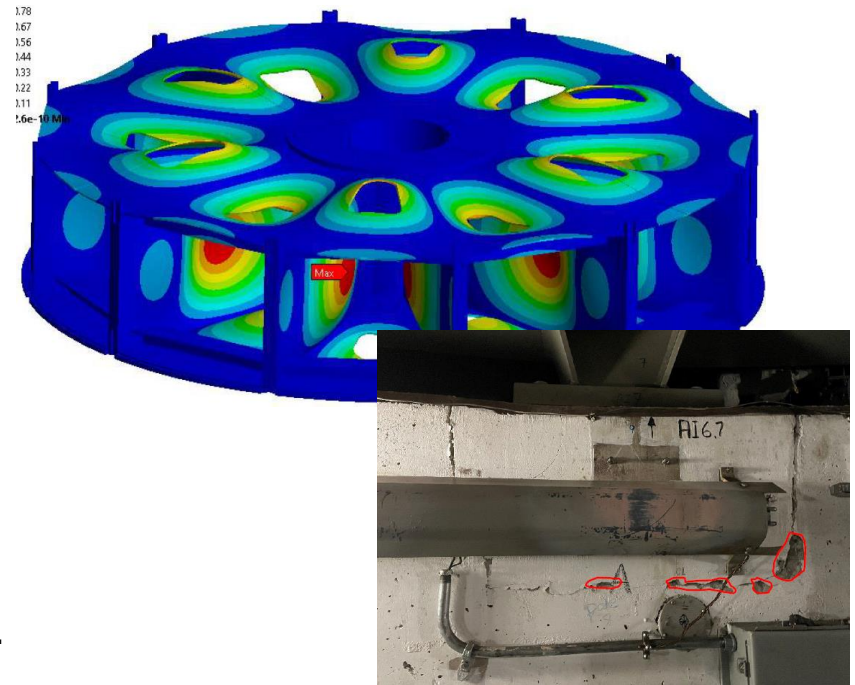
Scope: \$7.5M Project to Strengthen Unit 5 Rotor.

Current status:

- Excessive vibration.
- Stator frame translation.
- Unit remains out of service.
- Task Order #1 & 2 found vibration due to an ellipsoidal shape of the rotor and recommended rotor strengthening.
- RFP for Task Order #3 to strengthen rotor, perform rim shrink & repair stator sole plates.

Next Steps:

- Award Task Order 3.
- Complete work and re-commission unit
- Confirm repair effectiveness.



Milestone	Duration	Scheduled
Award T.O. #3	60	15-July-23
Test and Recommission Unit	660	1-May-2025
Complete T.O. #3/Return to Service	45	15-June-2025



RICHARD B RUSSELL UNIT 7 FAULT



Scope: Assess and Repair Damage to U7

Unit tripped on 3-Phase Differential on 25 May

Response:

- HTSC and Project performed initial assessment and retrieved protective relay data.
- Project staff removed covers for further assessment and inventoried spare parts.
- HTSC leading detailed evaluation, air-gap inspection and begin testing.
- Engaged Hydroelectric Design Center SME for reach-back support.

Next Steps:

- Complete testing of winding and poles.
- Develop detailed repair procedure.
- Execute repairs
- Complete testing
- Return unit to service



Milestone	Duration	Scheduled
Complete Assessment	36	30-June-23
Develop Repair Plan	30	30-July-23
Begin Repairs	TBD	TBD



SAD CONTROLS INFRASTRUCTURE UPDATES

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Scope: Implement next-generation Unit and Supervisory Controls throughout SAD.

SAD Controls Infrastructure Updates % Complete							
Cabinet Supply		Equip. Install		GDACS Install		Control Centers	
Design	69%	Design	29%	Design	34%	Design	8%
Award	20%	Award	16%	Award	24%	Award	0%
Complete	12%	Complete	8%	Complete	8%	Complete	0%
Key Milestones		Control Centers Complete			Jul-30		
		SCADA Upgrades Complete			Jun-32		

Current status:

- Equipment Supply SATOC: AWARDED.
- Equipment Install MATOC: AWARDED.
- Install Design for WFG 90%
- Install Design for HAR 80%
- Supply & Install Design for JHK 50%
- Install Design for RBR 30%
- Install Design for JST 30%

Next Steps:

- Award Task Orders for HWL & JHK.
- Upgrade JHK Governor Systems.
- Refine implementation schedule.
- ROC Programming Charrette.
- Complete Plant GDACS SCADA & Controls Designs.
- Procure and Install Equipment.

HTSC SIGNIFICANT ACTIVITIES

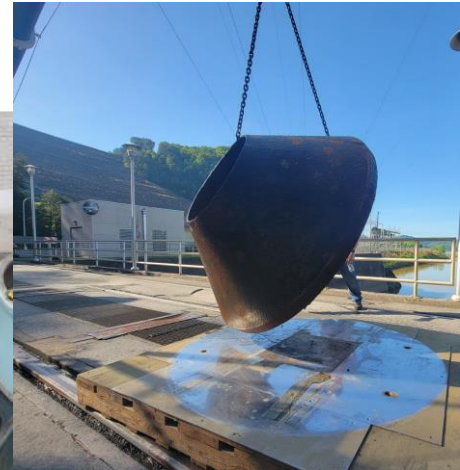


Forced Outage Responses:

- Thurmond Rotor Pole Repair
- Jones Bluff Intake Crane
- Russell Unit 7

Proactive Task Order Contracts:

- Governor Repair
 - On Hold due to staffing constraints
- Turbine Repair
 - Making Progress



HTSC Workload	
Open Projects	139
Planning	22
Design	20
Pre-Solicitation	15
Advertise	4
Execution	26
Closeout	9



QUESTIONS